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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,245	07/09/2003	William M. Polivka	005510.P076	2849

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James Y. Go  
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP  
Seventh Floor  
12400 Wilshire Boulevard  
Los Angeles, CA 90025-1026

EXAMINER

NGUYEN, TUYEN T

ART UNIT	PAPER NUMBER
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2832

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/617,245

Applicant(s)

POLIVKA ET AL.

Examiner

TUYEN T. NGUYEN

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 15-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 and 15-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, applicant should clarify what is intended by “such that energy to be received from a power converter circuit input is to be transferred from the first winding to the second winding through a magnetic coupling provided by the magnetic element to a power converter circuit output. Applicant should clarify the arrangement of the first/second winding relative to the magnetic element. Claims 2-10 and 15-18 inherit the defects of the parent claim.

Regarding claim 6, applicant should clarify the arrangement of the first and second winding relative to the magnetic element and what is intended by “without having to thread the first and second windings through an opening defined by the magnetic element.”

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-4, 6, and 15-16, as best understood in view of the rejections under 35 USC 112 second paragraph, are rejected under 35 U.S.C. 102(b) as being anticipated by Dangler et al. [US 5,760,669]

Dangler et al. discloses a transformer [figure 1] comprising :

- an insulating base [12] having terminal pins [14] ;
- a core structure [18, 20] including external surface; and
- first and second coils [22] wound directly around the external surface of the magnetic core, wherein ends of the first coil [26] connected to the terminal pins.

Regarding claim 2, Dangler et al. discloses the external surface of the magnetic core includes a substantially curved surface.

Regarding claim 3, Tolle et al. discloses the magnetic core includes a substantially cylindrical portion.

Regarding claim 4, Tolle et al. discloses the magnetic core further includes substantially planar surfaces [figure 1].

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 7-9 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dangler et al.

Dangler et al inherently discloses the coils/windings formed of insulated magnet wire.

Dangler et al. discloses the instant claimed invention except for the specific shape of the external surface, the specific of the winding insulation and a third winding wound around the magnetic core.

The specific shape of the magnetic core external surface, the specific winding insulation and additional winding would have been an obvious design consideration based on the intended applications/environment use and for the purpose of improving insulation between the coils/windings.

Regarding claim 17, Dangler et al. inherently discloses other ends of the coils/windings.

Dangler et al. discloses the instant claimed invention except for the specific connections of the winding ends.

The specific connections of the winding ends would have been an obvious design consideration for the purpose of facilitating mountings/connections.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dangler et al. in view of Chen [US 5,124,681].

Dangler et al. discloses the instant claimed invention except for an insulation material disposed between the first and second coils.

Chen discloses a transformer [figure 2B] comprising:

- a magnetic core [304]
- first and second coils [301, 302] wound around the magnetic core; and
- an insulation material [303] disposed between the first and second coils.

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It would have been obvious to one having ordinary skilled in the art at the time the invention was made to an insulation material between the first and second coils of Dangler et al., as suggested by Chen, for the purpose of providing insulation.

***Response to Arguments***

Applicant's arguments with respect to claims 1-10 and 15-18 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUYEN T. NGUYEN whose telephone number is 571-272-1996. The examiner can normally be reached on M-F 8:30-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ELVIN ENAD can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTN TTN

*Tuyen T. Nguyen*